TARC NEWSLETTER

TITUSVILLE AMATEUR RADIO CLUB

May, 1993

OFFICERS

President: Bud Hughes K4CWG 269-0779 Secretary: Jerry Russell KC4UFI 267-2157
VicePresident: Cliff Hoag KC4SYD 267-7030 Treasurer: Clyde Lee K4EOS 267-9375

PRESIDENT'S CORNER

By Bud Hughes K4CWG

A few years ago the FCC turned over to the hams the responsibility of administrating exams to both new and upgrading applicants. Those who administer the exams are called Volunteer Examiners (VE) and each one must be accredited by one of the Volunteer Examiner Coordinators (VEC). There are 18-20 VECs throughout the county. TARC VEs serve under W5YI-VEC. Within our club we have 32 VEs. TARC's very first exam session was 8/9/90, and the first applicant was a guy named Cliff who became KC4SYD. Since 8/9/90 our team has administered tests to 416 candidates in 42 sessions, averaging 9.9 applicants per session, with the following results.

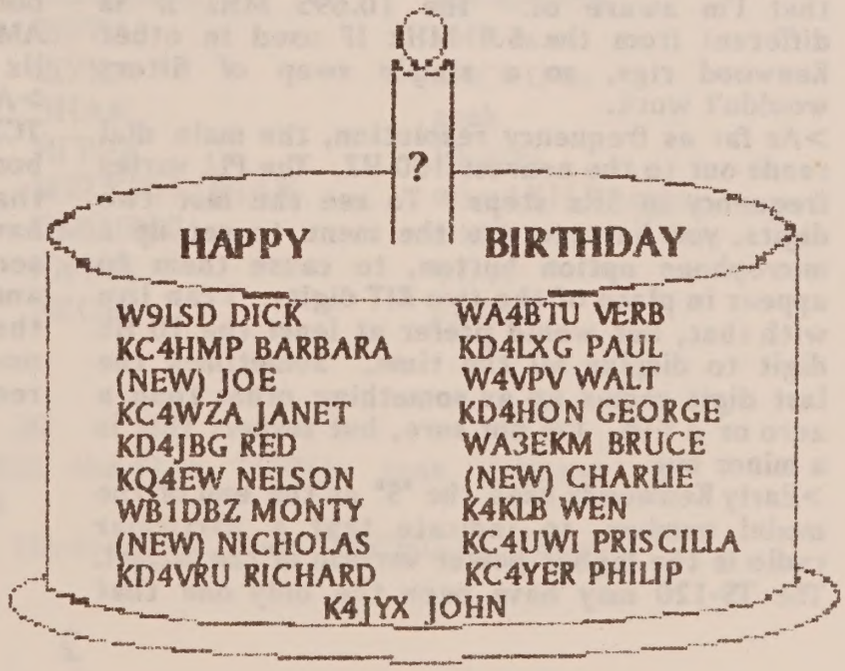
ELEMENT	PASSED	FAILED	TOTAL	% PASSING
1A	44	7	51	86
1B	361	11	47	77
1C	28	5	33	85
2	163	32	195	84
3A	133	53	186	72
3B	39	28	67	58
4A	21	17	38	55
4B	21	7	28	75
TOTAL	485	160	645	75

By the way, the national passing percentage is 66%. I am grateful to the VE team for their many hours of volunteer service to assist others to join this wonderful fraternity.

EDITOR'S DESK

By Clyde Lee K4EOS

If there is sufficient interest, the club will present a basic, hands-on computer course at no cost to members and their families. The course may also include a basic explanation of Packet Radio. If you have an interest in attending this course, please fill out and return the coupon on page 7. Also on page 7 you will find an absentee ballot for voting on the By-laws amendment.



TS - 50 REVIEW
By Fred McKenzie K4DII

Kenwood's new HF transceiver is significantly smaller than previous 100 watt transceivers. Although small in size, it has specifications and features common to larger units. It uses the menu technique of setting up defaults, common to the TS-450/690, so seldon-changed parameters can be adjusted semi-permanently.

>My first impression with the radio was that nothing appeared to happen when I turned the tuning knob. It turned out that the frequency was changing in 5Hz steps, which can barely be detected by ear. When turned at a more rapid rate, frequency changes are increasingly faster. This "smart" tuning knob makes it easy to make minor adjustments with slow tuning, but also to be able to make large changes by turning the knob faster.

>The radio has more features than meets the eye. You just have to go into the setup menu and turn them on or off, rather than doing it from a separate control on the front panel. Fewer controls means the front panel is less crowded. However, that is the source of one or two of my few complaints about the radio.

>I added the optional Hz CW filter. On other radios, you would select wide or narrow with a switch on the front panel. I prefer to tune across the band in wide, and switch to narrow after a CW station is tuned in. However, the TS-50 uses a menu entry to change to or from the CW filter, which is not convenient. You say this isn't important for a mobile rig? Maybe not, but it still bugs me.

>On the subject of filters, I miss the 1.8 MHz sideband filter, which is available for other Kenwood transceivers. The TS-50 comes with only the 2.4 KHz filter, and offers no upgrade that I'm aware of. The 10.695 MHz IF is different from the 8.8 MHz IF used in other Kenwood rigs, so a simple swap of filters wouldn't work.

>As far as frequency resolution, the main dial reads out to the nearest 100 HZ. The PLL varies frequency in 5Hz steps. To see the last two digits, you have to use the menu to set up a microphone option button, to cause them to appear in place of the two RIT digits. I can live with that, but would prefer at least the 10 Hz digit to display all the time. Sometimes the last digit comes up as something other than a zero or a five. I'm not sure, but suspect this is a minor bug.

>Early Kenwoods used the "S" at the end of the model number, to indicate that a particular radio is the higher power version of the model. The TS-120 may have been the only one that actually came both ways, but I don't know. I believe the lower power versions were mainly sold outside the US, in countries that don't allow higher power. More recent models have diode programming that restricts power and frequency, depending on the country of destination. There are several such sets of diode combinations listed in the TS-50 service manual.

>There isn't any spare room inside the TS-50 for an antenna tuner, so Kenwood produced the AT-50. It comes in a package the same size as the TS-50. It works well, but takes up a little more space. It would be best if located at an out of the way place in a car, such as under a seat. I'm using the Hustler mast-plus-resonator antenna system. It works OK with the bare TS-50, but the bandwidth is tight on 75 meters. The AT-50 specification allows 3:1 SWR, but it actually does much better than that. It spreads the 75 meter coverage with the hustler, from about 20 KHz to nearly the entire phone band.

>One option I purchased was the SO-2 TCXO 20 MHz oscillator. It may be a waste of money for most people. My justification for getting it was that the ambient temperature in the car can get pretty high in the Florida sun. Under such temperatures the standard oscillator might vary quite a bit - especially on ten meters.

>Incidentally, the SO-2 is also used in the TS-450/690. The one in my TS-690 appears to be exactly on frequency. However, the one in the TS-50 was right at the edge of tolerance. There was a trimmer capacitor hidden under the label, located under the "E" in "Kenwood". To get to it I peeled back the top left corner of the label. I used 20 MHz as my standard. The beat note seems to be enhanced by listening in FM mode. If you can't hear the beat note, tune it so that 20 MHz WWV's tone has the same audio pitch in both upper and lower sideband, as it has on AM. To do this, you MUST be sure that the ten Hz and 1 Hz digits are each zero.

>A couple of hints about installing the SO-2 TCXO: the digital board that lies on top of the board with the 20 MHz oscillator has 3 cables that must be removed temporarily. connectors have a "locking" feature to hold the flat cables securily. When unlocked, the cables will slip in and out of the connectors easily. When locked, they are rather hard to get in and out. The manual doesn't tell you this. It just says to remove cables "Carefully"! (see page 7)

RUSSIAN ALPHABET

BY Jim Greeway W4UYZ

Russian alphabet	Morse code / English letter	Sound		
А . –	A	a	АЛЕКСЕ́Й	a-lek-SEY
Б – . . .	B	b	БОРИ́С	bo-RIS
В . – –	W	v	ВАСИ́ЛИЙ	va-SI-li
Г – – .	G	g	ГРИГО́РИЙ	gri-GOR-i
Д – . .	D	d	ДМИ́ТРИЙ	d-MI-tri
Е .	E	ye	ЕЛЕ́НА	ye-lyE-na
Ё .	E	yo	ЕЛЕ́НА	ye-lyE-na
Ж . . . –	V	zh	ЖЕ́НЯ	ZHE-nya
З – – . .	Z	z	ЗО́Я	ZO-ya
И . .	I	ee	ИВА́Н	i-VAHN
Й . – – –	J	short ee	ИВАН КРА́ТКИЙ	i-vahn-KRAT-ki
К – . –	K	k	КИЛОВА́ТТ	ki-lo-VAHT
Л . – . .	L	l	ЛЕОНИ́Д	le-on-NID
М – –	M	m	МАРИ́Я	ma-RI-ya
Н – .	N	n	НИКОЛА́Й	ni-ko-LAI
О – – –	O	o	О́ЛЬГА	OL'-ga
П . – – .	P	p	ПА́ВЕЛ	PA-vel
Р . – .	R	r	РОМА́Н	ro-MAN
С . . .	S	s	СЕРГЕ́Й	ser-GEY
Т –	T	t	ТАТЬЯ́НА	tat'-yA-na
У . . –	U	u	УЛЬЯ́НА	ul'-yA-na
Ф . . – .	F	f	ФЁДОР	FYO-dar
Х	H	kh/x	ХАРИТО́Н	kha-ri-TOHN
Ц – . – .	C	ts	ЦЕНТР	TSEN-tr
Ч – – – .		ch	ЧЕЛОВЕ́К	che-lo-vyEK
Ш – – – –		sh	ШУ́РА	SHU-ra
Щ – – . –	Q	shch	ЩУ́КА	SHCHU-ka
Ъ – . . –	X	hard sign	ЗНАК	znak
Ы – . – –	Y	y	И́ГРЕК	EE-grek
Ь – . . –	X	soft sign	МЯ́ГКИЙ ЗНАК	mi-yAKH-ki znak
Э . . – . .		e/eh	ЭМИ́ЛИЯ	e-MIL-i-ya
Ю . . – –		yu	Ю́РИЙ	YU-ri
Я . – . –		ya	Я́КОВ	yA-kov

Examples of call signs:

W B 4 C X V = В Б 4 Ц Ъ Ж

= va-SI-li bo-RIS che-TI-re TSEN-tr znak ZHE-nya

K H 6 Q Y = К Х 6 Щ Ы

= ki-lo-VAHT kha-ri-TOHN shest SHCHU-ka EE-grek

FAKE SOS COSTS VIRGINIA AMATEUR $50,000

From April, 1993 QST

Jorge Mestre, NS3K, 55, of Fairfax, VA, pleaded guilty to knowingly and willfully communicating false distress signals on August 7, 1992.

>Mestre entered his plea on Feb. 12, 1993, in US District Court for the Eastern District of Virginia in Alexandria, under a plea bargain he had made with the government. Under the agreement, Mestre will permanently surrender his FCC amateur license, dispose of his Amateur Radio equipment within 60 days, and make restitution of $50,000 to the US Coast Guard. Sentencing was set for May 7, 1993; under the law (14U.S.C.88c), Mestre could receive up to six years imprisonment and a fine of up to $250,000.

>The distress calls, on SSB and CW, described a sinking vessel off the Turks and Caicos Islands in the West Indies. It was also falsely reported that six people aboard the vessel were in the water and needed to be rescued. For approximately two hours on the evening of August 7, the false distress communications continued and included the internationally recognized Morse code distress signal "SOS". >The distress signals were monitored by other Amateur Radio operators, who notified the Coast Guard and the FCC. The FCC's long range radio direction finding network began monitoring the signals. Using the direction finding data, subsequent detailed analysis of tape recordings of the hoax transmissions and information provided by other Amateur Radio operators, the FCC was eventually able to identify Mestre's Amateur Radio station as the source of the false distress messages.

>Subsequent tests of Mestre's radio equipment, which was seized on a federal search warrant, confirmed that his station was responsible for (Continued on page 7)

BEYOND THE HAM BANDS

By George V. Bortle KD4CBV

The new technology in electronics has brought "out of band" reception to many new amateur radios. Some require minor modifications to achieve this, some have this capability out-of-the-box. "Out-of-band" reception is available not only on VHF and UHF, but even the new HF rigs include general coverage receivers. Over the past several years, I have compiled a data base of over 2000 frequencies in Central Florida. Listening to launches and other activity at KSC are some of my favorite. Thanks to K4GCC, we can hear the shuttle audio on the 146.940 repeater. NASA's "Photo Control" on 148.485 gives a countdown for the expendable and NOT ANNOUNCED launches. If your rig doesn't go out of band, and you would like to get in on the action, maybe now is a good time to up-grade. With all the new hams coming on line, your old rig might bring top dollar. The same technology has also increased the functionality while reducing the cost on programmable scanners. Listed below are just a few of the KSC frequencies. Next month I'll bring you local emergency services frequencies.

FREQUENCY	PAIRED W/	NAME	CH	COMMENTS
118.625	393.000	Cape Canaveral A.F.S.	T	Skid Strip Tower
121.050		Patrick A.F.B.		"Patrol 1&2" during STS-55
121.750		NASA	G	Shuttle Landing Ground
125.900		"		Surveillance A/C
126.650		" (Cape Weather)		Weather Aircraft
126.550	284.000	"	T	Shuttle Landing Tower
143.280		Cape Canaveral A.F.S.		CG Air Chanel
148.485		" " A.F.S.		Photo Unit
157.075		Marine	81	Coast Guard Range Control
163.4625		Cape Canaveral A.F.S.		Primary Security
163.5625		" " A.F.S.	F	Primary Fire
164.625		NASA		Wildlife Management
173.4375		"	117	Primary Medical
173.4625		"	205	Safety
173.5625		"	116	Fire Primary
259.700		"		Shuttle Air-Grn 1
264.800		"	•	"Thinker I"
270.000		"		"Halo Project" March 93
282.800		"		Shuttle Air-Grn 2

TITUSVILLE AMATEUR RADIO CLUB, INC.
P. O. Box 73, Titusville, FL 32781

TO: The General Membership of the Titusville Amateur Radio Club, Inc.

FROM: The Executive Committee/Board of Directors of the Titusville Amateur Radio Club, Inc.

SUBJECT: Proposed Revision to the Titusville Amateur Radio Club, Inc. By-Laws, last revised 19 January, 1990.

1. In accordance with Article 9 of the Titusville Amateur Radio Club, Inc. By-Laws, titled "Amendments", your Executive Committee/Board of Directors recommends the following revisions to Article I, Section 3 "Membership Dues."

1.1 Proposed Change to read as follows:

SECTION 3. MEMBERSHIP DUES: (1) General membership dues shall be twenty dollars ($20.00) annually, and the initial payment must accompany the application for membership. (2) Dues shall be due each year on the anniversary date of the inception of membership. (3) Family memberships shall be available to the immediate family members of the general member for an additional fee of five dollars ($5.00) each, provided that they reside at the same address. (4) Membership dues may be waived as defined in article 8, "Honorary Membership" and "Exempt Membership." (5) Any member who ignores notification from the Treasurer that he or she is three (3) months delinquent in his or her dues shall cease to be a member and can only reinstate his or her membership by conforming with paragraph (1), (2) and (3) of this section. (6) Future changes in the basic dues as specified in this section may be revised by the Executive Committee/Board of Directors, subject to the approval of members present at a regularly scheduled meeting.

2. Background

Article 1...
SECTION 3. MEMBERSHIP DUES: (Incorporated 31 January, 1990, now reads.) (1) Application for membership shall be accompanied by an initial entry fee of one dollar. (2) General membership dues shall be five dollars annually, repeater supporters shall be an additional fifteen dollars annually. (3) Family memberships for a fee of one dollar shall be available to the spouse of a general member, and must reside in the same address. (4) Membership shall be from anniversary date to anniversary date. Any member in arrears for membership fees for ninety days after notification by the treasurer, shall cease to be a member. (5) Six months membership is available for part time residents at half the annual rate. (6) Members who wish to reinstate membership will follow paragraphs (2) through (5) above.

3. Requirements For Change

Article 9
AMENDMENTS: These By-Laws may be amended by a two-thirds vote of the attending voting members and absent ballots. (1) Proposals for amendments shall be submitted in writing to the club. (2) Proposals shall be read at two regular meetings. (3) Proposals shall be posted in the club newsletter before being voted upon. (4) Absentee ballots may be used but must be received by the President prior to the voting at the club meeting. Receipt of absentee ballots shall be noted in minutes of the meeting by call sign. (5) These by-laws shall become in full force and effect on and after their approval and adoption by this organization. When possible, amendments shall be incorporated into the original text of the by-laws.

4. Method for Change:

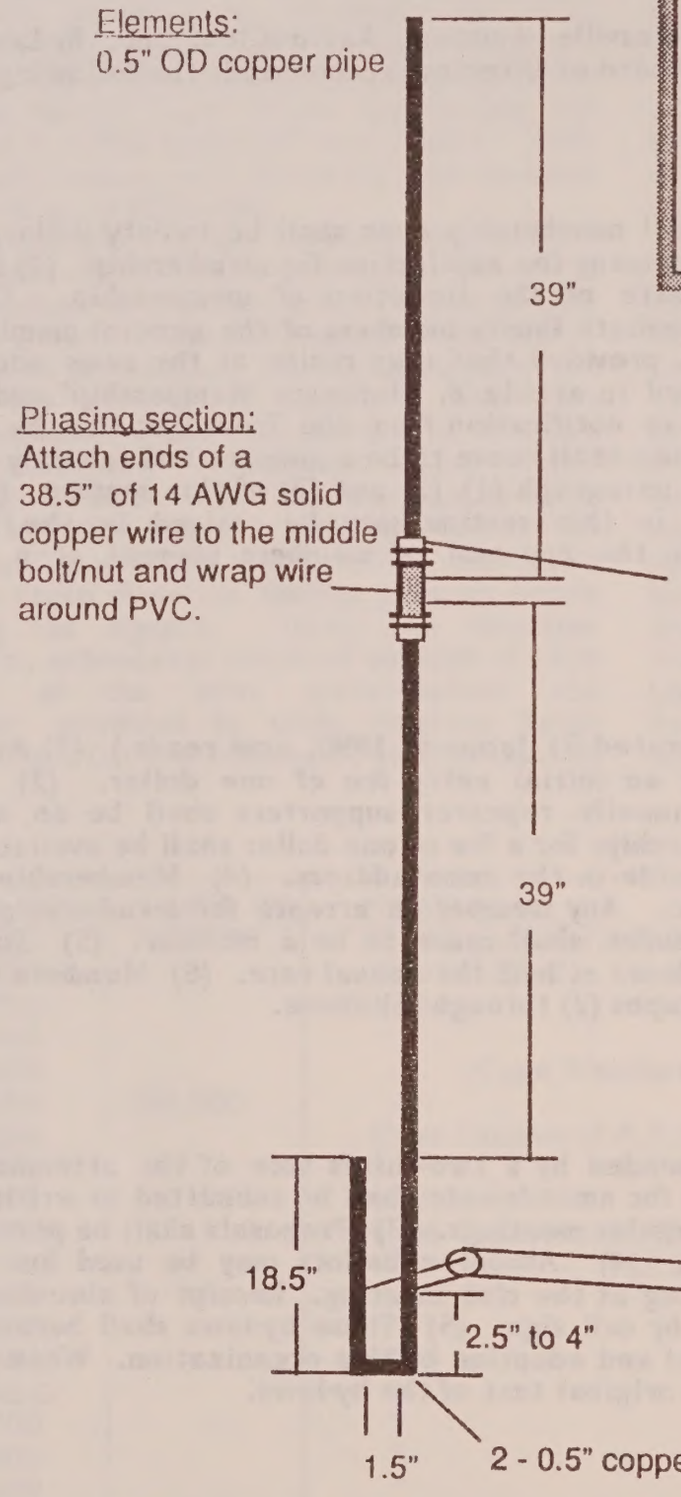
To be read to the General Membership at the 27 April 1993 meeting and the 25 May 1993 meeting. Further to be published in the May 1993 Newsletter, in strict accordance with paragraph (3) above.

By: KQ4OY - Tom

2m(146MHz) Double/Triple J-Pole
(6/9dB+ Omni Gain)

ALSO 70CM (LESS GAIN)

Parts list for Double J-Pole:
1 - 10' x 0.5" copper pipe
2 - 0.5" elbow joints
6" x 0.5" dia. SCH40 PVC
38.5" 14AWG solid copper wire
RG58/Mini 8 coax feed line
4 - 1" x 1/8" bolts and nuts
2 hose clamps for 0.5" pipe
(or 2 self tapping screws)



IMPORTANT NOTE:
Must check SWR prior to adding phasing section and top element. For the Triple J-Pole repeat phasing section and top element.

Data extracted from ARRL handbook.

(Continued from page 2)
2) When removing these cables, be sure there is no 12 volt power coming into the radio. There is live power on these cables, even when the radio is "off".
>If you are looking for an excuse to get one of these radios, it is ideal for the mobile environment, even though it lacks some of the features of a base station radio such as the TS-450. After several weeks of use, I really like the little TS-50. If I had a second vehicle, I would buy a second TS-50!

THE GREAT INDIAN RIVER RAFT RACE
By Ozzie N4SCY

>If it's April, it's tax time. But if it's April in Titusville, it's time for the Annual Indian River Raft Race. Oh sure, there is a weekend long Festival that the Chamber of Commerce sets up, but for our radio club, there is only the race that we have to worry about (though some of us sneak back on Sunday to watch the Bikini Contest).
>While Bud K4CWG was still driving to the site, a few of us were standing alongside the Yacht Club building waiting for things to happen. Brian WB8BJT and I attended the Captain's Meeting which was held for those who would be in the various classes. Two things were made evident. Each crew member MUST wear a life vest, and their vessels were NOT expected to be seaworthy.
>I wound up on the boat that was the starting line marker. Mitch AC4WM hadn't even been a volunteer before that morning, but he wound up with his trawler as Northern Marker for all classes, and his dinghy as the buoy for the Unlimited Class outer marker. Others were on boats, and at the judges stand. A great time was had by all participants, who were:
Joe KE4AEB, Bud K4CWG, Skid KD4DOJ, Ken KD4HNW, Brian WD8JLT, Lloyd KA4LTK, Warren KD4RQT, Jose KD4RVB, Ozzie N4SCY, Vince KK4SH, Bob W4VQB, Mitch AC4WM

(Continued from page 4)
the hoax communications. He is also suspected of having been involved in at least three additional false distress cases within the last several years.
>US Coast Guard rescue policy requires that it commit the assets necessary for locating a vessel in distress and for assuring the safety of people aboard such a vessel. Consequently, the Coast Guard, upon being notified of the distress signal, immediately began a major search-and-rescue operation, deploying cutters and four aircraft to the area claimed to be the sinking vessel's location. The governmenrt of the Turks and Caicos joined the search, launching patrol craft and merchant marine vessels in the area were also advised of a vessel in distress.
>Responding to such hoax distress calls diverts crucial Coast Guard equipment and personnel that may be needed to respond to real emergencies and conduct legitimate search and rescue operations, poses unnecessary potential threats to the safety of Coast Guard personnel, and is extremely costly to the government. As a result of the false distress messages transmitted in this case, the Coast Guard spend more than $100,000 to conduct its search-and-rescue operations.

(From a February 12 FCC press release by Richard Cullen, US Attorney for the Eastern Districtof Virginia; Richard M. Smoth, Chief of the Field Operations Bureau of the FCC; and the US Coast Guard.)

DXCC #3 for 2 meters has been issued to Kjell Rasmusson, SM7BAE of Staffanstrop, Sweden. He follows in the footsteps of #1, Dave Blaschke, W5UN, and #2 Gary Crabtree, KB8RQ.

COMPUTER COURSE

☐ I would attend a basic computer course.

☐ I would attend a course on basic packet.

The best weekday evening for me is:

_____
(Day of Week and time)

RETURN TO TARC-PO BOX 73,TITUSVILLE 32781

ABSENTEE BALLOT

☐ YES - Change By-laws as stated on Page 5

☐ NO - Leave as amended on 01/19/90

COMMENTS:_____
_____
_____

RETURN TO TARC-PO BOX 73,TITUSVILLE 32781

TREASURER'S REPORT - YEAR TO DATE
By K4EOS, Clyde Lee

Transferred from old acct.	977.82
DEPOSITS: 50/50,ARRL,dues,donations, Interest loan,stu.fees,Xmas pty.	3315.79
TOTAL INCOME	4293.61
EXPENSES: ARRL.bnk.chgs,Loan pmts.,, gifts,Ins.Off.supp,POBox,Hamfest, tailgate,corp.fees, postage,printing, stu.bks,tel,Xmaspty.,Exam.fees	2943.62
BALANCE AS AT 04/30/93	1439.99
BALANCE IN SAVINGS:	25.19
Bud's loan bal.as at 12/31/92	2333.00
Paid through 4/30/93	521.50
BALANCE DUE BUD	1811.50

MEETING DATE MAY 25, 1993, 7:00 PM AT JAYCEE BUILDING ON SINGLETON FIELD DAY PLANS WILL BE FINALIZED

HAMS NEEDED FOR BICYCLE TOUR
By Ozzie N4SCY

The "Tour de Cure" is a bicycle tour of the Kennedy Space Center and surrounding area. While they plan to use cellular telephones for communications around the course, I can tell you from my experience in the Tampa Bay area that when the batteries start going out about 9:30 to 10:00 AM, the cry of "where's that ham" will be going out.

>Ham communications requirements will probably consist of a lawn chair and a hand held through the 146.91 or 146.97 repeater.

>The tour is May 23, 1993. Please contact me if you wish to participate.

APRIL MEETING MINUTES

ED.NOTE: Our thoughts are with Sharon KD4MIW whose mother is in the hospital. Due to the illness of his mother-in-law, Jerry KC4UFI hasn't had time to write up the minutes, so Bud K4CWG and I have written them from memory and they are subject to revision by the secretary.

The meeting was convened at the usual 7:00 PM by Bud K4CWG. 53 members were present.

>Vince KK4SH, Field Day chairman reported on the probable site - Sand Point Park - for the June operation.

>Bud K4CWG introduced several new members, who were voted into the club.

>There was a request from the RACES Council for a $50 loan from each of the area clubs to allow them to incorporate so they may have available operating funds. The membership voted in favor of the loan.

>The club by-laws were addressed by a recent board meeting and changes were proposed (see page 5) These proposed changes were read and discussed and a vote taken to proceed with the changes subject to voting at a later meeting. This passed by a majority vote.

>After break, Ken KC4HNW and an associate gave a program on Hiking/Backpacking the Appalachian Trail.

>Meeting adjourned at 9:30 PM.

DOPPLER KITS
From VMS News - Byon Garrabrant, KD6BCH

I have located a source for Doppler direction finding kits. The circuit appears to be based on the project described in "TRANSMITTER HUNTING - Radio Direction Finding Simplified" by Moell and Curlee. The kit comes with 2 printed circuit boards, one for the display and one for the rest. All parts are included to build the decoder and antenna switching circuitry, but the antenna parts are not included.

>Dopplers have their place in one's T-hunting arsenal. They are useful for locating mobile foxes and medium to strong vertical signals. They are not so useful for locating weak horizontal signals, especially when hunting in areas of strong adjacent channels.

>The kits are available from Marty Mitchell, N6ZAV at (714)760-6060. They cost $99 plus $3 for shipping.

ABELL'S ANECDOTES

By Pike Abell, W4EPU

BETCHA DIDN'T KNOW . . .

....nothing's harder on your laurels than resting on them.

....some people are alive today because it's illegal to kill them.

....if TV doesn't get any better, we'll have to start talking to our families again.

....failure should be our teacher, not our undertaker.

.....birds sing in the morning because they don't have to go to work.

....bad health is a good cure for bad habits.

....a lot of people are smarter than they look, and that's reassuring.

....fame is largely a matter of dying at the right moment.

....the problem with humor is that people take it seriously.

....when solutions catch up with problems, boredom takes over.

....there are two kinds of people who don't say much, those who are quiet and those who talk a lot.

They had to drop the "Driver Education Program" at my school....the mule died.

A loser is a guy who puts a seashell to his ear and gets a busy signal.

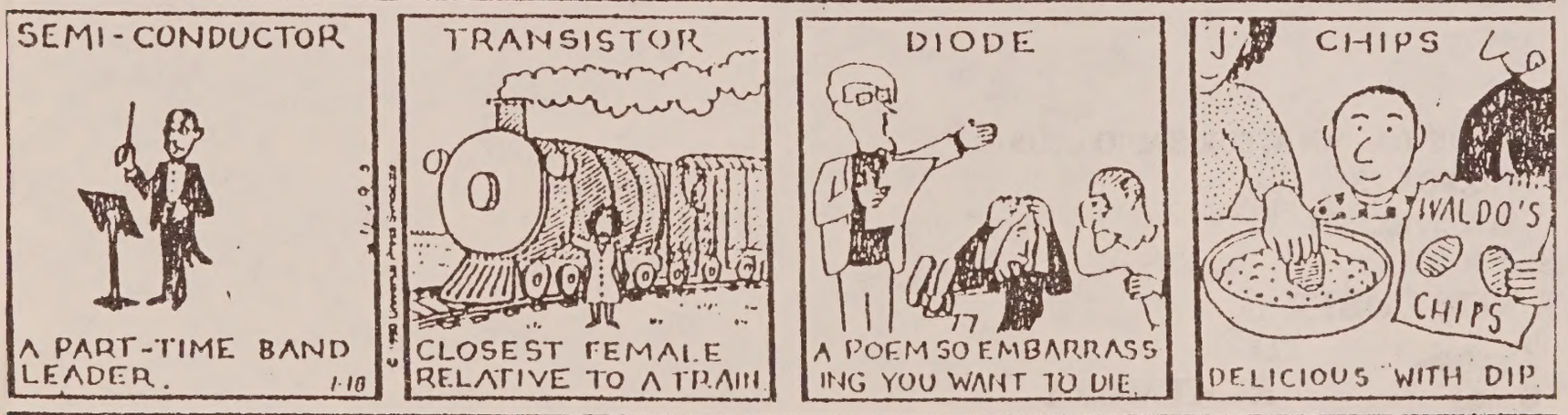
Sales of aftershave lotion and cologne gifts reach an all-time high on Father's Day, proving that everybody loves Father, but nobody likes the way he smells.

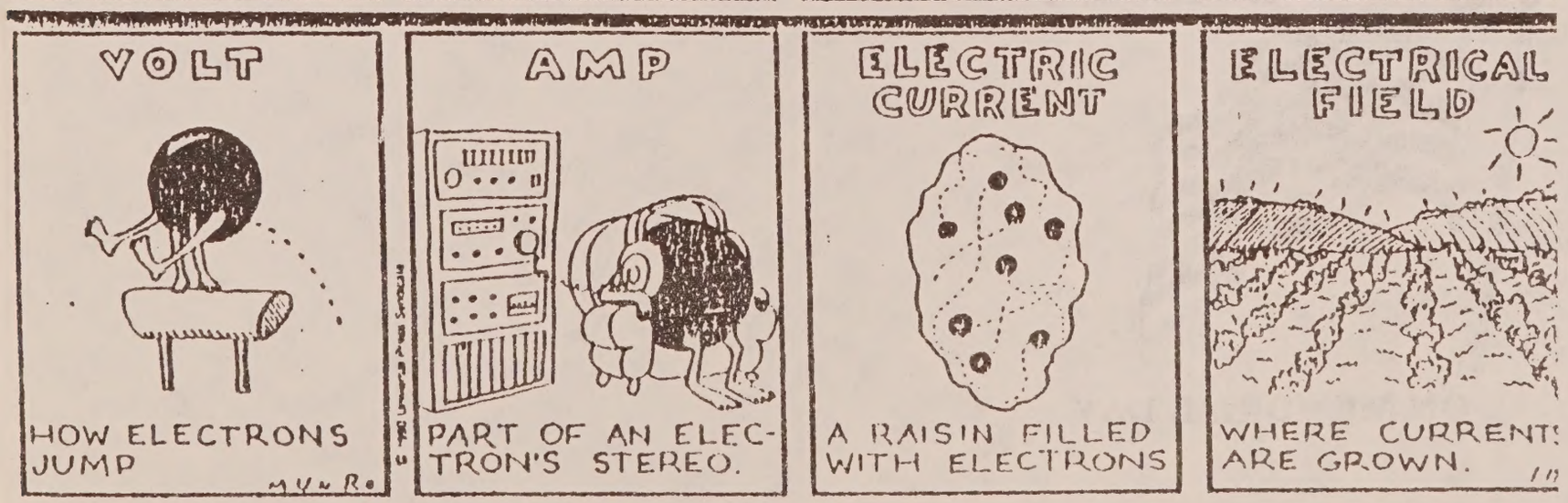
"Have your eyes ever been checked?"
"No, they've always been a solid blue."

When Hoover was President, he gave all his salary back to the government. The idea caught on, and now they've got us all doing it.

Nine year old: "Why does your grandmother read the Bible so much?"
Ten year old: "I think she's cramming for her finals."

ELECTRONICS MADE EASY:





MEMBERSHIP UPDATE

Total Membership: 222 (includes 38 family members & 5 honorary)

New Members: WA4BTU Verb Verble
K4JYX John J. Adams
KD4WWO Mattie Adams
KE4AGK Maurice J. Gionet

Renewals: KB4WLT Ken & KD4VFQ Kay Watson
KC4ZHE John Halasz
N4PPO John Stephens
KC4WG Walt Hart

UPCOMING HAMFESTS

5/22	Lake Worth	FREE!Sunset Ridge Park Talk-in on 146.670
6/19	Sarasota	FREE!Riverside High School Talk-in on 146.910
6/19	Orlando	FREE!Univ.of Central Fl. Talk-in on 146.640
7/31-1	Jacksonville	Prime Osborne Conv.Cntr. Talk-in on 146.76
9/11-12	Melbourne	Melbourne Auditorium Talk-in on 146.76
9/26	N.Pt.Richey	New Pt.Richey Rec.Centr. on 145.350 or 147.150
10/9	Titusville	Sand Point Pavilion
10/16	Starke	Bradford Co.Fairgrnds. Talk-in on 145.150
10/23-4	W.Palm Bea.	Expo Center-S.FL Fairgrnd. Talk-in on 147.165
10/29-30	St.Ptsburg.	QCWA Nat. Convention Airport Holiday Inn Talk-in on 145.290

TITUSVILLE AMATEUR RADIO CLUB
P.O.BOX 73
TITUSVILLE FL 32781

REMEMBER
TO
REMEMBER

ON MEMORIAL DAY